Flexible / Classy / High Performance

POS GT-150 Series

USER'S MANUAL

All-in-One Touch Screen POS System

Intel Pentium Mobile Motherboard, 15 inches LCD Monitor

Available in BLACK & SILVER colors

About this Manual

Thank you for purchasing **POS GT-150 Series** All-in-One system. This terminal offers all the enhanced features and is easy to connect to various optional devices for optimal performance. This user manual describes how you setup and connect your terminal.

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Federal Communications Commission (FCC)

Declaration of Conformity

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesirable operation.

This equipment has been tested and found to comply within the limit of a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the interference receiving antenna.
- Increase the distance of separation between the equipment and interference receiver.
- Connect the equipment to a power outlet on a circuit different from that to which the interference receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

WARNING:
Use the included AC power cord so as not to interfere with radio and television reception.
If you use other cables, it may cause interference with radio and television reception.

WARNING:
TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

WARNING:
This is a equipment of Class A. This device could cause interferences in residential areas; in the case of interferences it can be demand from the user to provide appropriate solutions for it.

WARNING:
The use of shielded cables for connection of the monitor to the graphics card is required to assure compliance with FCC regulations. Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

CE FCC Federal Communications Commission RoHS

BEFORE YOU PROCEED

- Read the safety notices and the User's Manual carefully before using the product.
- Keep the box and packaging in case the product needs to be shipped in the future.
- Follow the product and warning label instructions.
- For safety reasons, only qualified service personnel should open the terminal.
- Any changes or modifications that do not follow the instructions in this manual will void this product/s warranty.

! SAFETY PRECAUTIONS

In the interest of safety, please observe the following precautions:

Power Requirement:

This product is designed to operate on 230V AC 50/60Hz in Europe.

Never connect to any outlet or power supply having a different voltage or frequency.

! POWER SUPPLY SAFETY NOTICE

- Disconnect this terminal from the AC outlet before cleaning. Use only a moistened cloth for cleaning.
- Check the voltage of the power source when connecting the equipment to the power outlet. Make sure the voltage of the power outlet conforms within voltage range of the terminal. Failure to comply may cause the electric shock or damage to the terminal. If you are not sure of the electricity voltage that you are using, contact your local electricity company.
- To avoid electric shocks, disconnect the power cord from the electrical outlet before relocating the system.
- Do not overload electric power outlets to avoid fire or electric shocks.
- Protect the power cord from being walked on or pinched particularly at plug.
- If the equipment is not used for a long time, disconnect the equipment from the mains to avoid damage.
- Never allow liquid into ventilation openings. This could cause fire or electrical shock.

! OPERATING INSTRUCTIONS

- Keep the User's Manual for future reference.
- Follow the product label instructions.
- Lay this terminal on a stable surface when installing. Heavy objects placed on the product can cause damage or obstruct proper ventilation.

- If one of the following situations arises, notify a qualified service technician immediately:
  a. The power cord or plug is damaged.
  b. Liquid has been split on to the terminal.
  c. The terminal has been dropped and damaged.
  d. The terminal does not function according to the user manual.
  e. The terminal has obvious signs of damage.

- Ventilation slots and holes are provided on the sides of this unit. Do not block any ventilation openings to prevent the equipment from overheat.
- Do not place the unit locations with high humidity and dust. They can cause extensive damage. Avoid places where unit is likely to be exposed to oily fumes and vapors.
- Places exposed to direct sunlight, or near heating appliances can attain extremely high temperatures, which may deform the cabinet, or can become a prime cause of damage.
- The operating ambient temperature range is 41˚ F - 104˚ F (0˚ C to 40˚ C), and humidity of 10% - 90%. When using the unit on the system rack, be sure to keep this ambient temperature inside the range.
- Avoid shaky places or hot-springs areas where hydrogen sulfide and acidic ions are likely to be generated.
- When transporting this unit, make sure it is not likely to be subjected to impacts. They can be a prime cause for damage.

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1. Introduction

Welcome

Congratulations on your purchase of POS GT-150 Series Terminal. Your easy-to-use POS terminal is designed to help you enhance your business flexibility by offering a superior customer experience.

1.1 How to Use This Manual

This manual contains all the information needed for setting up a POS GT-150 Series Terminal. In addition, you can also consult the manual for the operation system and added peripheral hardware.

- **Provides an introduction to POS GT-150 Series Terminal and this user's manual.**
- **Provides all necessary information for all hardware setup.**
- **List all the specifications of POS GT-150 Series Terminal and information for the motherboard configuration.**
- **Provides information for troubleshooting POS GT-150 Series Terminal.**

1.2 A Visual Tour of POS GT-150 Series Terminal

Before you start, take a few moments to become familiar with POS GT-150 Series Terminal.

Elegant, Solid, Fashionable Compact Design

Easy to reach I/O Connector Ports
(Back Side of Machine)

Main Unit

VFD Mounting Cover

I/O Connector Ports Cover

Available in 15”
TFT LCD Touch
Monitor
3 in 1 MSR
+
Smartcard
+
i-Button Reader
WIFI
Air Vent
(on both left and right sides)

Finger print-Free
Front Bezel Design
Auto Power Switch,
Bright Control Cover
Speak Hole

"Very easy to Maintain"

Take ONLY 4 Steps to reach all the POS inner components:

Step 1:
Slide out the rear plate

Step 2:
Unscrew this screw

Step 3:
Slide the case outwards

Step 4:
Remove the rear monitor cover

1.2a What Comes With POS GT-150 Series Terminal

The following items are standard with POS GT-150 Series terminal.
Before setting up your POS GT-150 Series terminal, check that the package contains the following items. If any of the items are missing or damaged, contact your supplier immediately.

- **Main system with LCD panel**
- **User's Manual**
- **Touch screen and related POS peripherals driver and utility CD**
- **Motherboard chipset driver and user's manual CD**
- **AC power cord**

Optional Items:

- **3 in 1 MSR + Smartcard + i-Button Reader**
- **VFD Customer Display**
- **MSR**
- **Second LCD monitor 8” 10”**
- **Peripherals (Scanner, Cash drawer, Receipt printer)**

POS GT-Series with 3 in 1 MSR + Smartcard + i-Button Reader

POS GT-Series with Second Monitor

VFD Customer Display

Peripherals

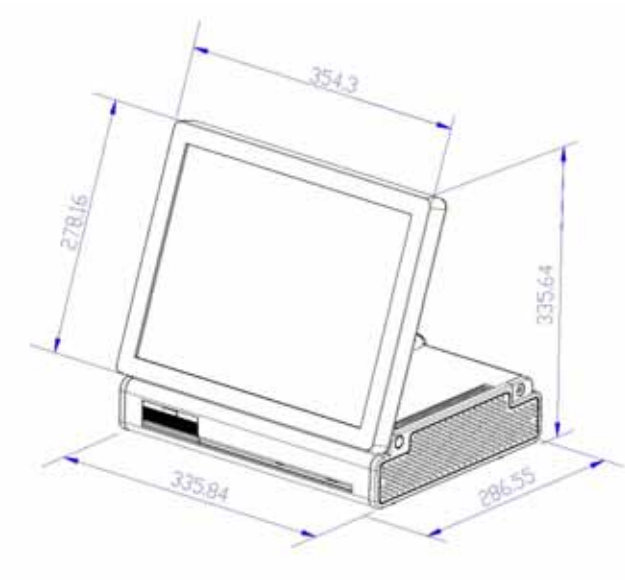
Receipt Printer

Cash Register

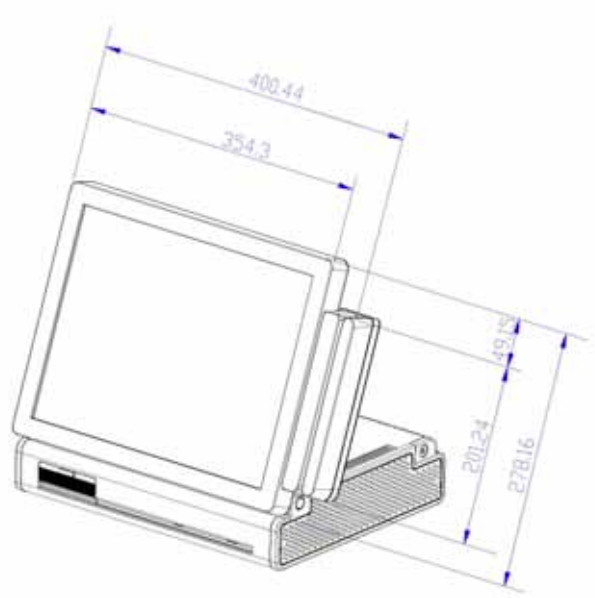
Barcode Scanner

1.2b Dimension 15”

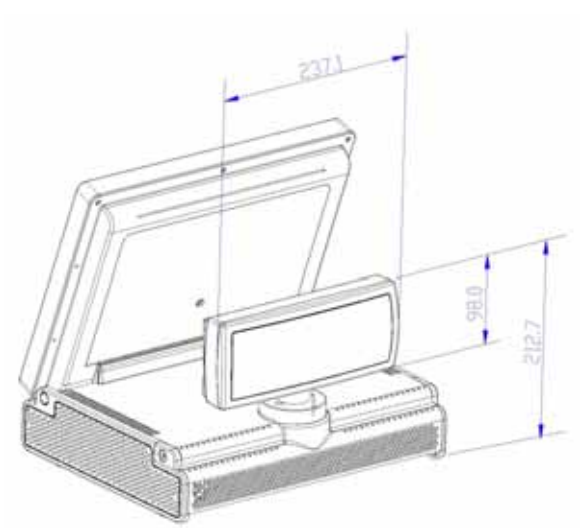
15” POS GT-series Terminal Dimensions:



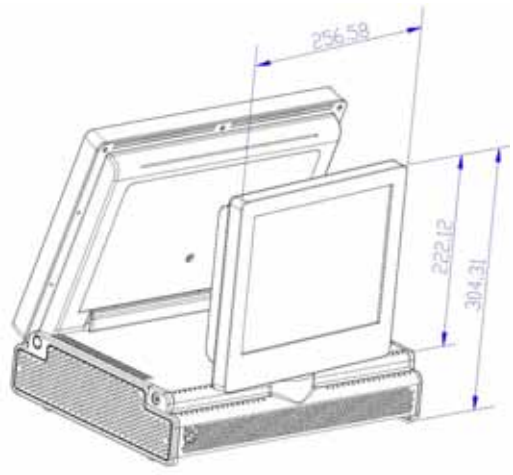
15” POS GT-series Terminal and MSR Dimensions:



15” POS GT-series Terminal and VFD customer display:

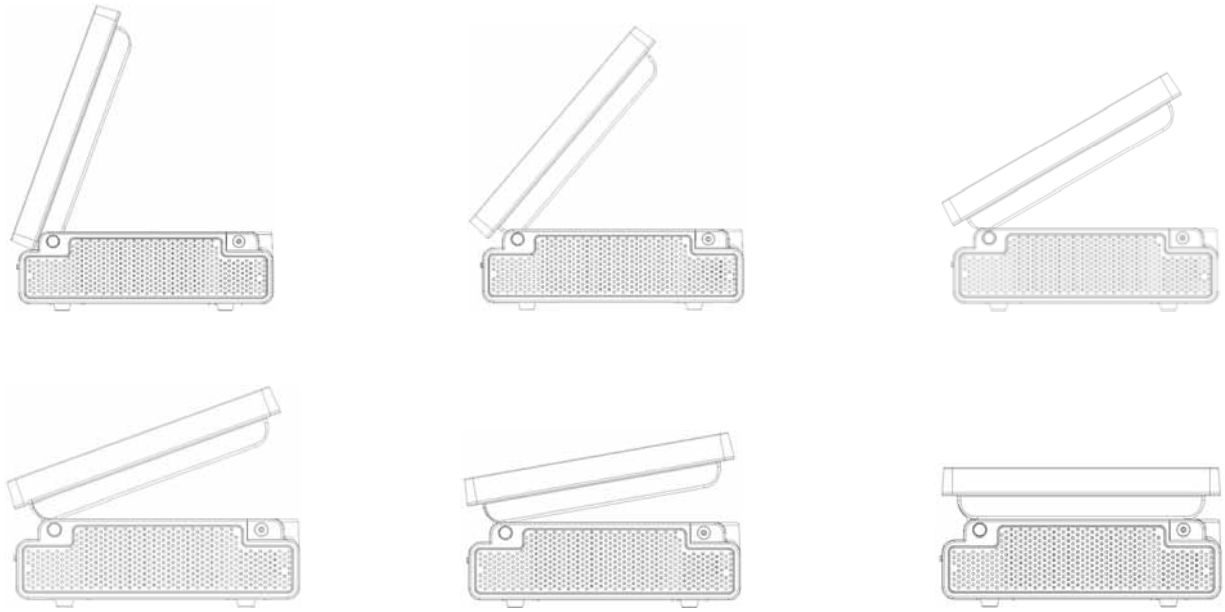


15” POS GT-series Terminal and second LCD monitor:



1.2c Adjustable LCD Operation Angle

“ Super Firm and Perfectly Secured LCD display Angles from 0 ~ 70 degree”



1.3 Features

POS GT-150 Series terminal comes equipped with the following features:

- **Low power consumption** — LV (Low Voltage) design of the device is embedded with a unique chip set and CPU renders power saving function.
- **Saving cost of ownership** — Modular design provides the owner with the following benefits:
  (a) cost effectiveness,
  (b) customization flexibility, and
  (c) easy maintenance.
- **Compact size/Aesthetic design** — Slimmest in the POS industry standard [Open: 351(W) x 288(D) x 329(H) mm, Close: 351(W) x 281(D) x 140(H) mm]. This elegant, economic POS system feathers a sleek, compact design base that saves counter space and adds appeal to the service environment.
- **Dust/water proof** — GT-series features a highly durable, rigorously tested design that is reliable and dependable in rugged environments.
- **Environment protection** — Environmental friendly, RoHS compliant product.
- **High Stability** — The GT-series has a longer overall system MTBF to provide a higher stability during operation.

1.4 Connector Panels

The connector panel is located at the bottom of the main unit base. To clearly see the panel you must open the base cover.

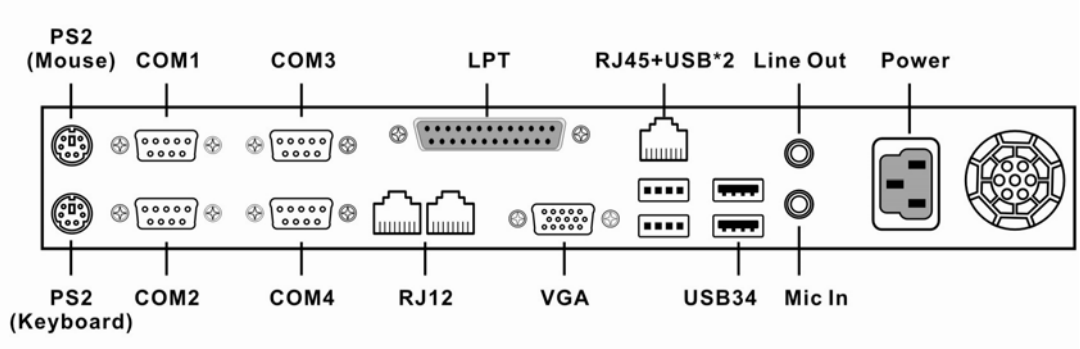


Chart of the connector panel:

I/O Port	Connector Type	Description
PS/2 Mouse	PS/2 Mouse Connector	Use this port for an external mouse.
PS/2 Keyboard	PS/2 Keyboard Connector	Use this port for an external keyboard.
COM 1 COM 2 COM 3 COM 4	DSUB Connector	The serial ports COM1/COM2/ COM3/ COM4 can be used to connect serial devices such as a mouse or a fax/modem.
LPT	DSUB Connector	The parallel port LPT can be used to connect parallel devices, such as a printer.
RJ12	RJ12 Cable	The port is used to hook this device to a modem.
VGA	VGA Connector	The VGA port is for the external LCD or CRT monitor.
RJ45	10/100Mbps Ethernet	The LAN port is used to hook this device to a local area network.
USB	USB	The USB (Universal Serial Bus) port can be used to connect USB devices.
USB34	USB	The USB (Universal Serial Bus) port can be used to connect USB devices.
Audio	Speaker Cable	After install onboard audio driver, you may connect speaker to Lin Out jack, microphone to Mic In jack.
Power Connector	ATX_12V power connector	The ATX_12V power connector mainly supplies power to the CPU. Caution! If the ATX_12V power connector is not connected, the system will not start.

1.5 Switch Panels

The switch panel is located in the front of the device. To clearly see the panel you must open the cover.

Button	Description
Reset	Press this button to reboot the device.
USB	The USB (Universal Serial Bus) port can be used to connect USB devices.
On/Off	Power switch button.

2. Hardware Setup

Getting Started

This section describes how to install the optional accessories on your POS GT-series Touch Terminal for optimal serviceability.

2.1 Pre-installation Notice

Before you start installing POS GT-series terminal, please read the following notices carefully.

1. The POS GT-series terminal does not support PCI slot.
2. Do not plug in or unplug any interior devices, such as memory module or any function card, when the ATX PSU is powered on.
3. For installation and compatibility, using the DDR RAM Module from the original manufacturer is recommended.
4. The USB device connector is Hot Swap. Do not plug in or unplug any connectors other than USB devices when the power is on.
5. The spill proof design of POS GT-series conforms to IP-43 standard.
6. Do not insert or remove any devices or components from the POS GT-series terminal while the power is on.

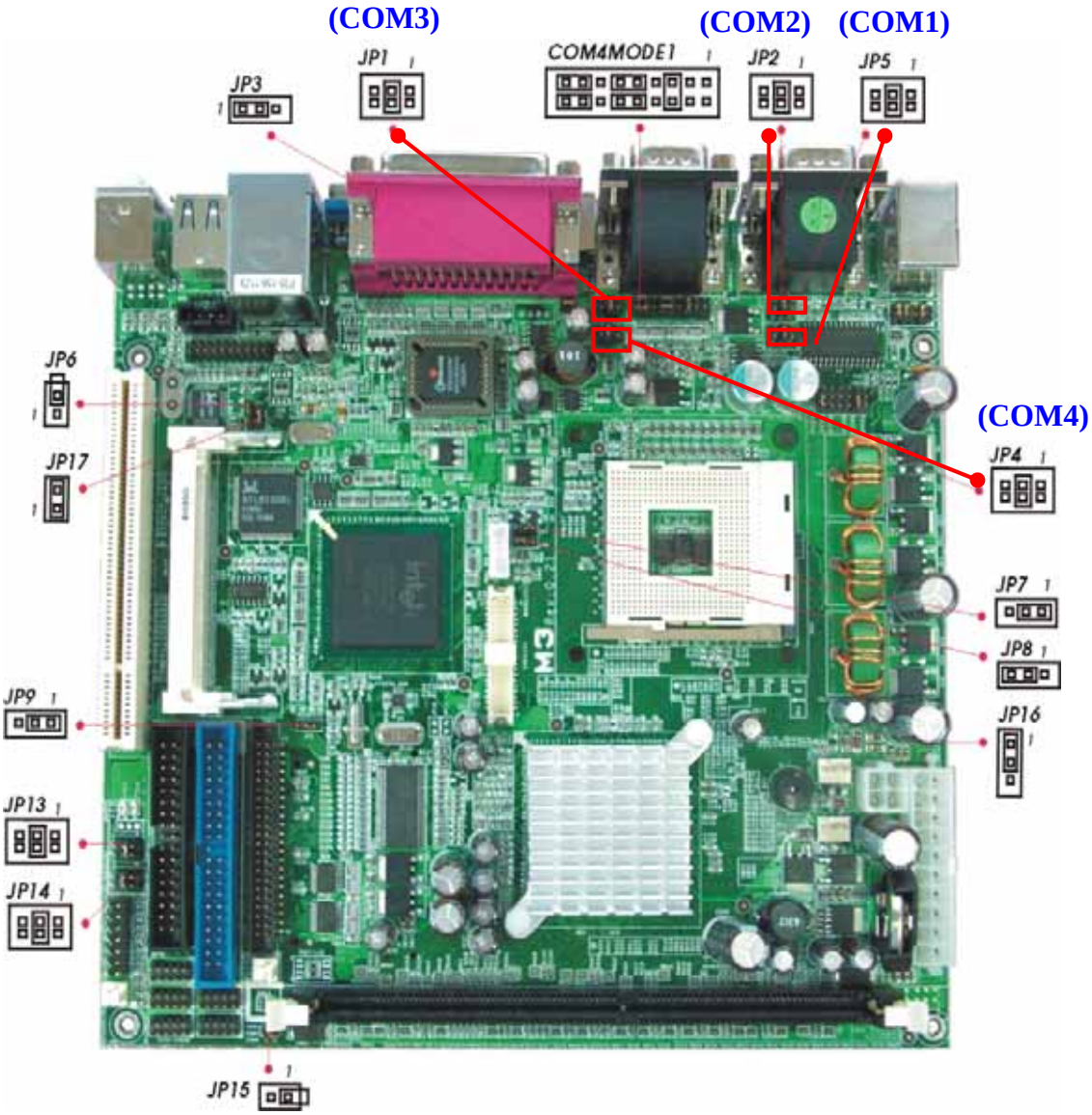
Hardware Assembly

Please make sure that the system power is turned off and the power supply is disconnected when making any hardware changes to POS GT-series terminal.

2.2a COM power selection

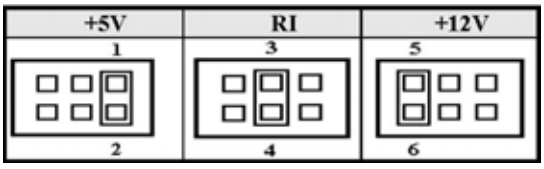
Change the Jumper position

Before you start using the COM port, please make sure that JP1 (for COM 3), JP2 (for COM 2), JP4 (for COM4) and JP5 (for COM 1) on the main board are set correctly.



The Power electricity on COM ports of GT-150 is 0 as default. If you want to change power electricity to +5V or +12V, you have to follow the instruction below.

Prepare nippers to change the position of the jumpers from Ring-IN to +5V or +12V as the picture shown below.



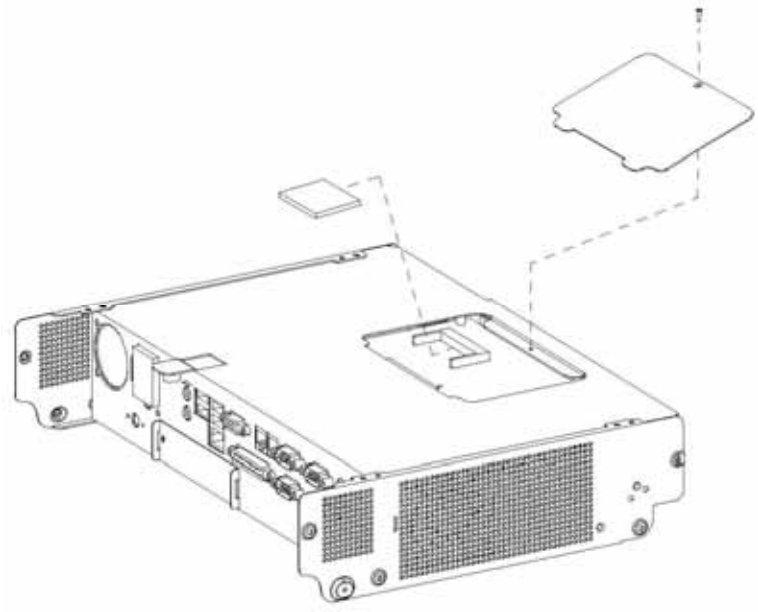
2.2b Compact Flash Installation……

Package Content

- A Compact Flash (CF) card

Installing a CF Card

1. Turn off the system power.
2. Turn over the GT series, the CF Card socket is found under the case.
3. Unscrew the metal piece and take it off.
4. Plug-in the CF Card.
5. Replace the metal piece and retighten the screw.
6. You may turn the system back on once the CF card is completely installed.

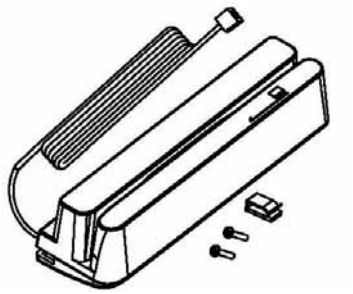


2.2c Magnetic Stripe Reader Installation……

An optional Magnetic Stripe Reader (MSR) can be installed on the right side of GT-150 Terminal.

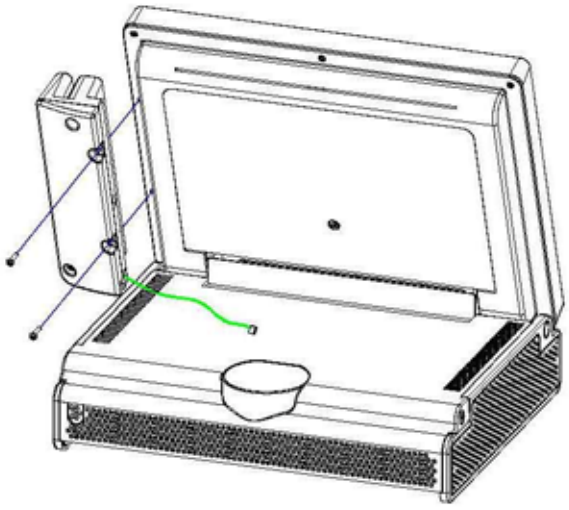
Package Content

- An MSR
- A cable clip
- Screw x 2



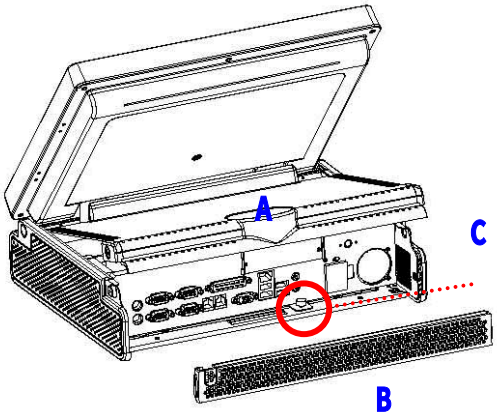
Installing an MSR

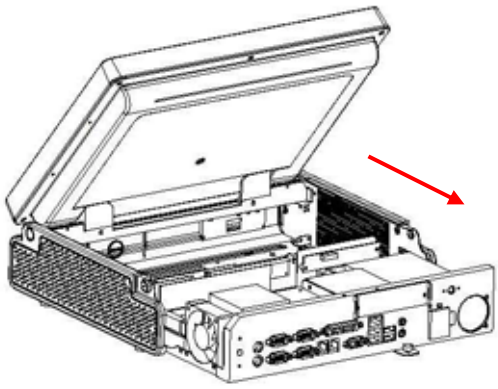
1. Turn off the system power.
2. Using two screws to secure the MSR to the right side of the monitor.



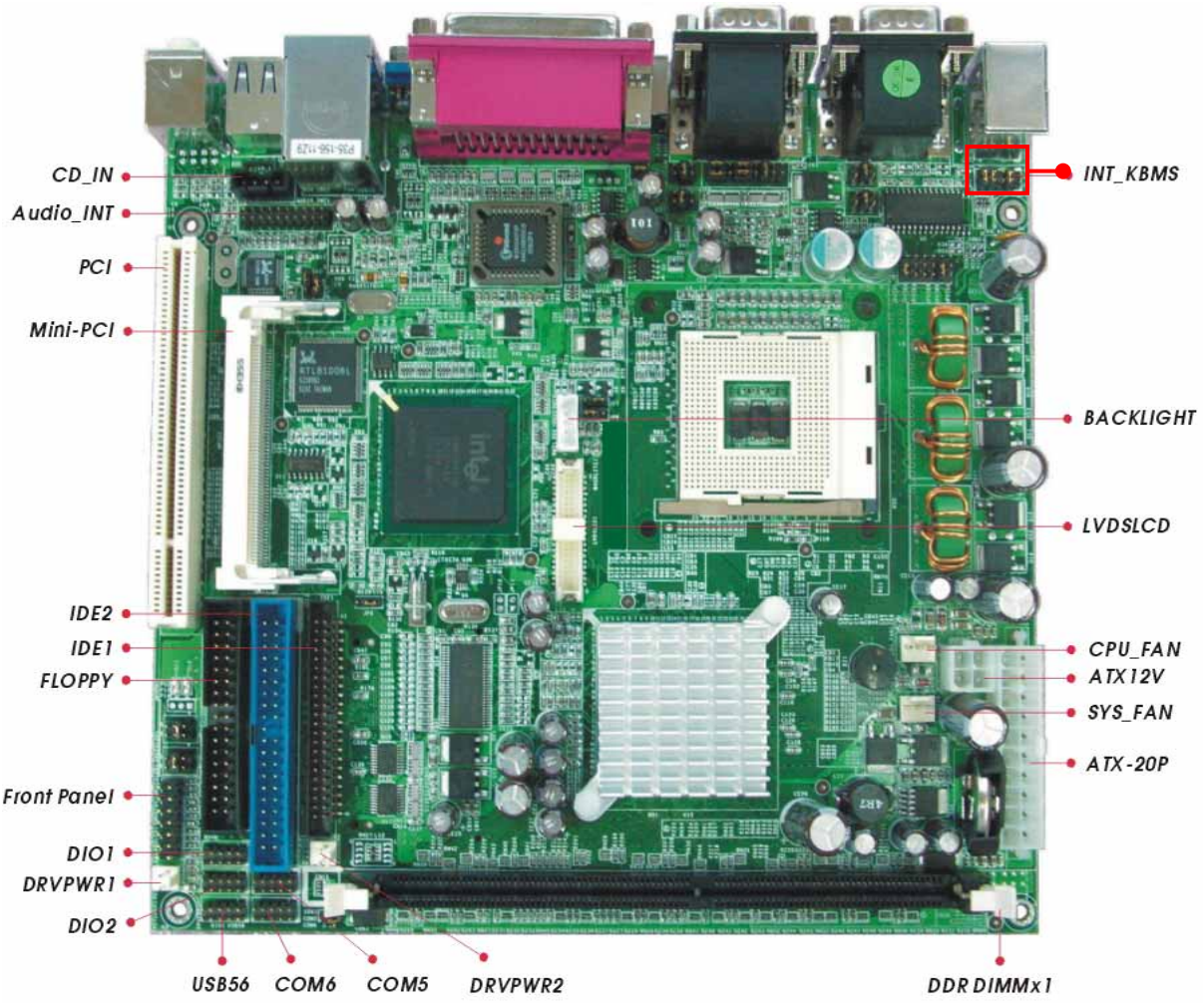
3. Loosen the two screws on both sides as the picture shown below.

4. Slide out the rear plate (A) and take off the back plate (B). Loosen the screw (C) and slide the unit outwards to reach the main board.

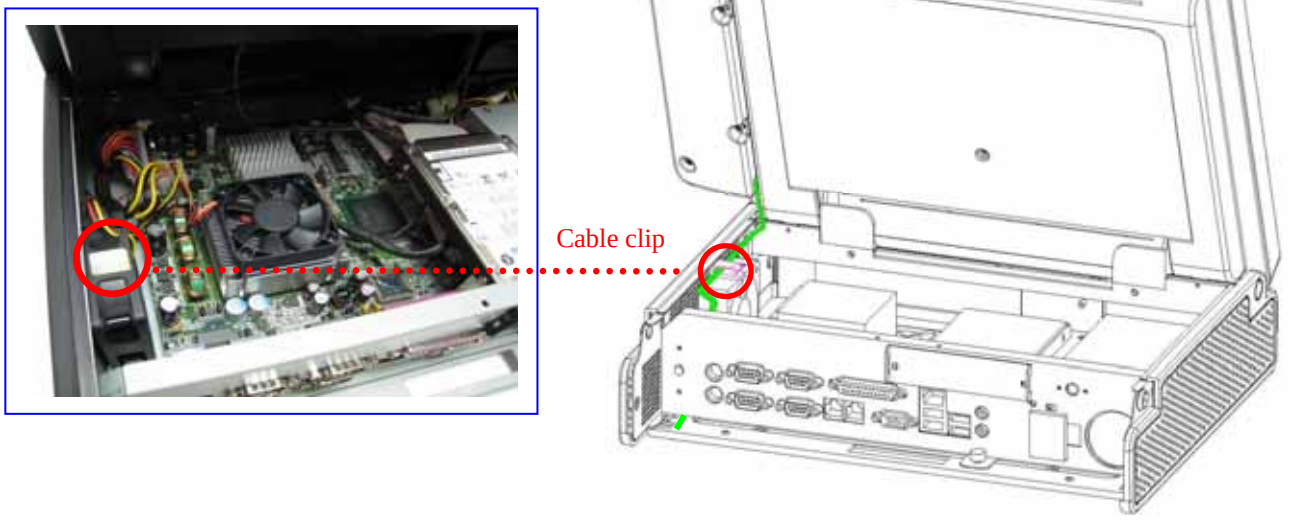




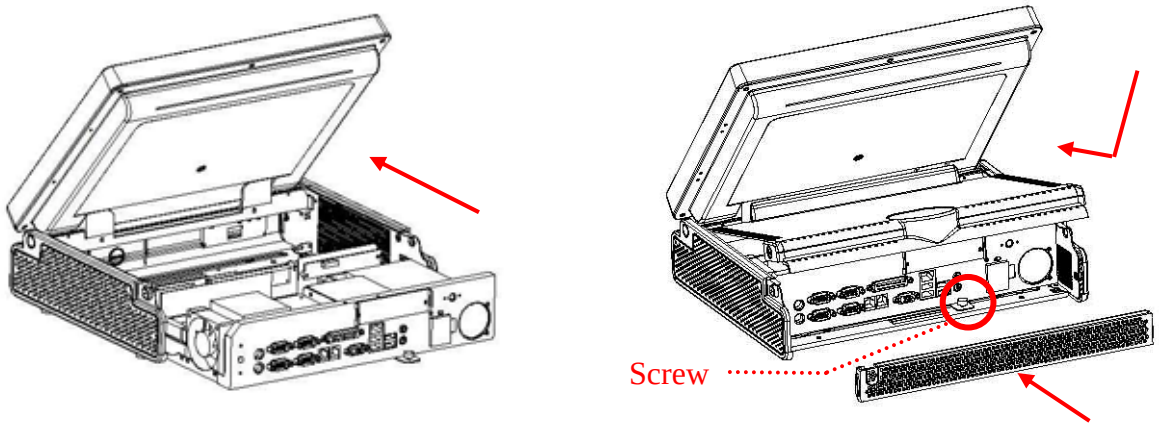
5. On the main board, take off all the jumpers on INT_KBMS port.



6. Trace the MSR cable into the unit using the cable clip on top of the fan to secure the cable. Connect the MSR cable to the INT_KBMS port.



7. Replace the case, back and rear plate.



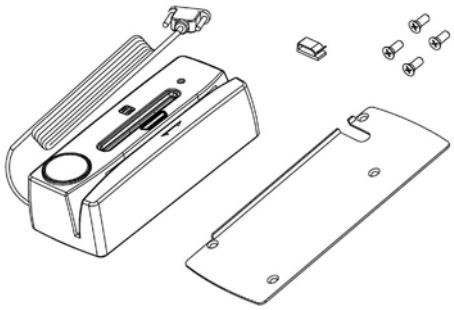
8. You may turn the system back on once the MSR is completely installed.

2.2d 3-in-1 Card Reader Installation…

An optional 3-in-1 Card Reader can be installed on the right side of GT-150 Terminal.

Package Content

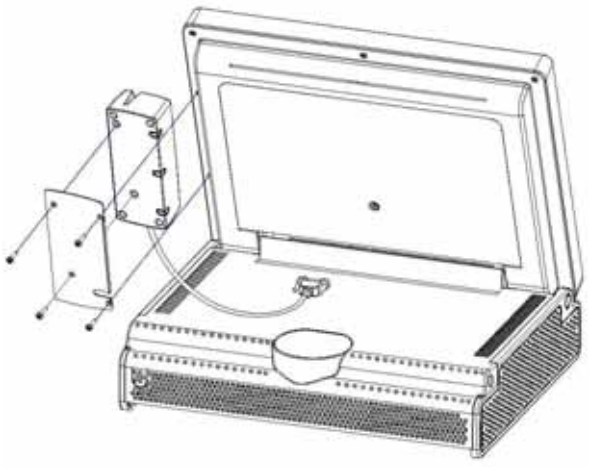
- A 3-in-1 Card Reader
- A metal piece for securing 3-in-1 Card Reader
- A cable clip
- Screw x 4



Installing a 3-in-1 Card Reader

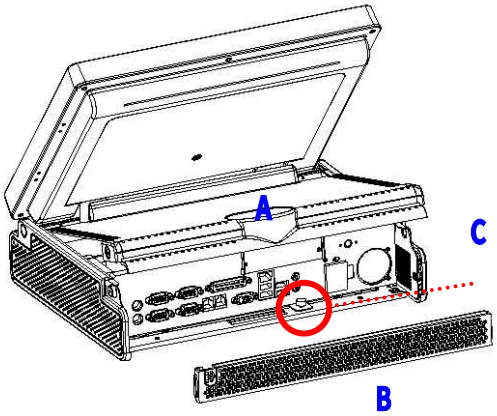
Note: Before installing a 3-in-1 Card Reader, please make sure the jumper is set correctly on the main board (Please refer to 2.2a COM power selection). The supply voltage for the customer display should be set to +5V.

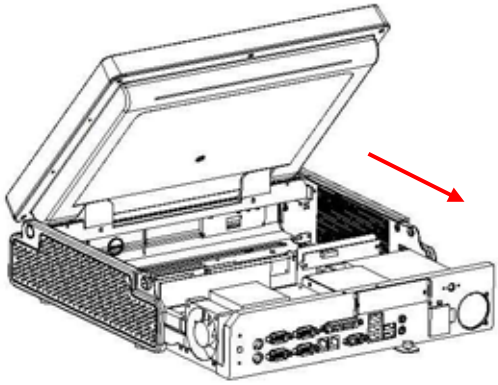
1. Turn off the system power.
2. Using two screws to secure the 3-in-1 Card Reader to the metal plate.
3. Using two screws to secure the 3-in-1 Card Reader to the right side of the monitor.



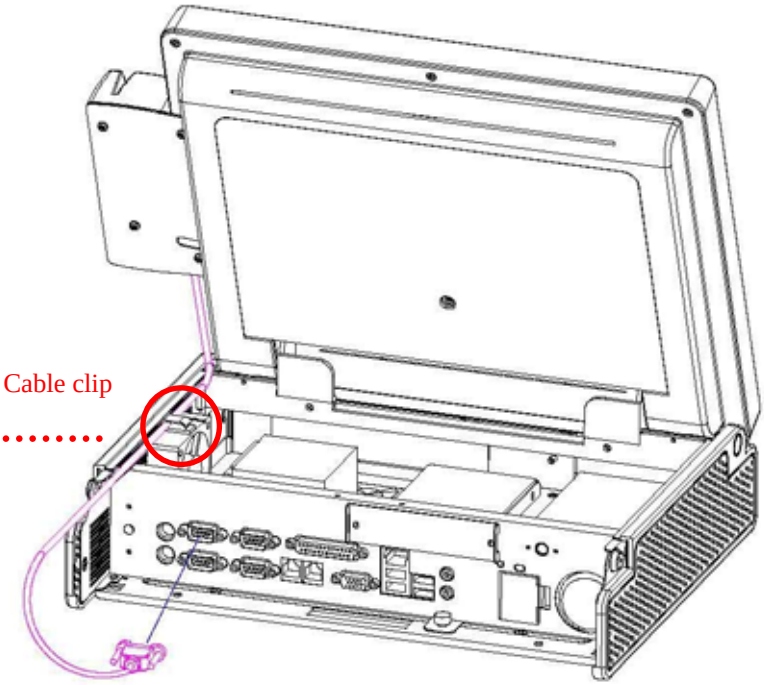
4. Loosen the two screws on both sides as the picture shown below.

5. Slide out the rear plate (A) and take off the back plate (B). Loosen the screw (C) and slide the unit outwards to reach the main board.

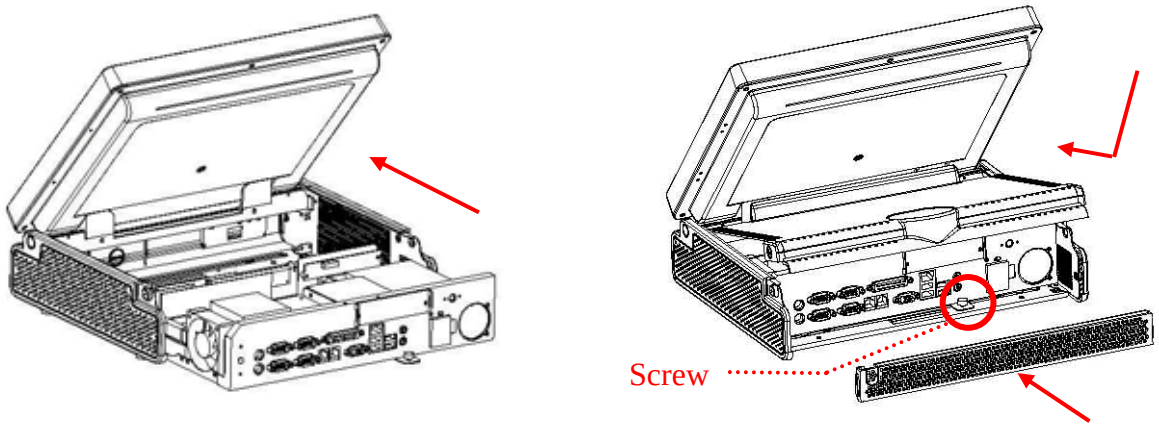




6. Trace the 3-in-1 Card Reader cable into the unit using the cable clip on top of the fan to secure the cable. Connect the 3-in-1 Card Reader cable to the COM port.



7. Replace the case, back and rear plate.

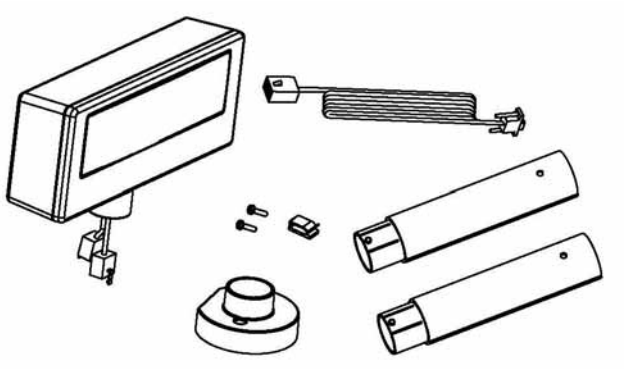


8. You may turn the system back on once the 3-in-1 Card Reader is completely installed.

2.2e VFD Customer Display Installation…

Package Content

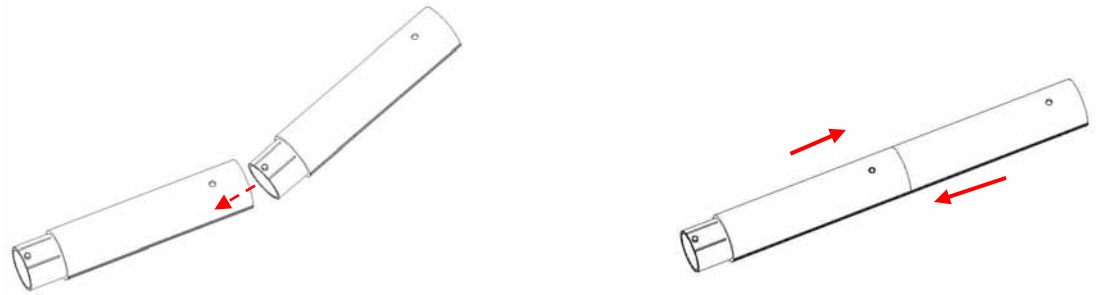
- A VFD
- VFD Pole x 2
- A cable clip
- A circular base
- A COM cable
- Screw x 2



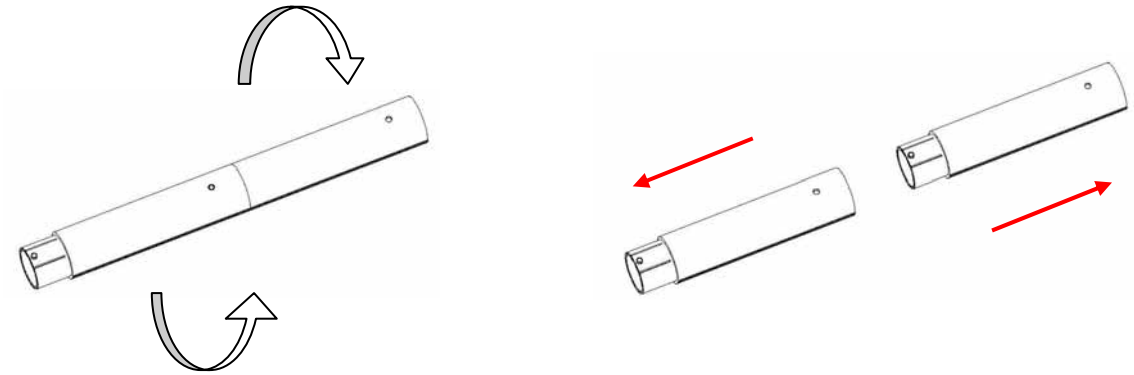
Assemble and Disassemble the Circular pole

There are two standard pole heights that may be ordered. You can regulate the height of VFD for your preference. To assemble the circular base:

1. On the circular poles, first aim the convex hole of one pole at the concave hole of another one.
2. Put the convex hole into the concave hole as the picture shown.
3. Fasten the two poles.



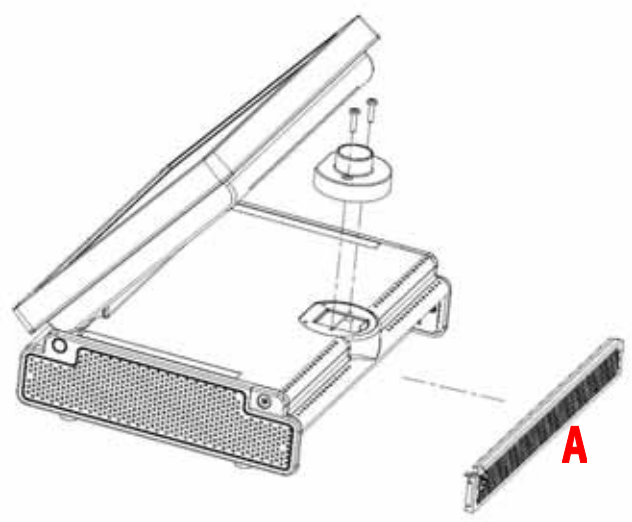
To disassemble the pole, revolve two poles with a counter power.



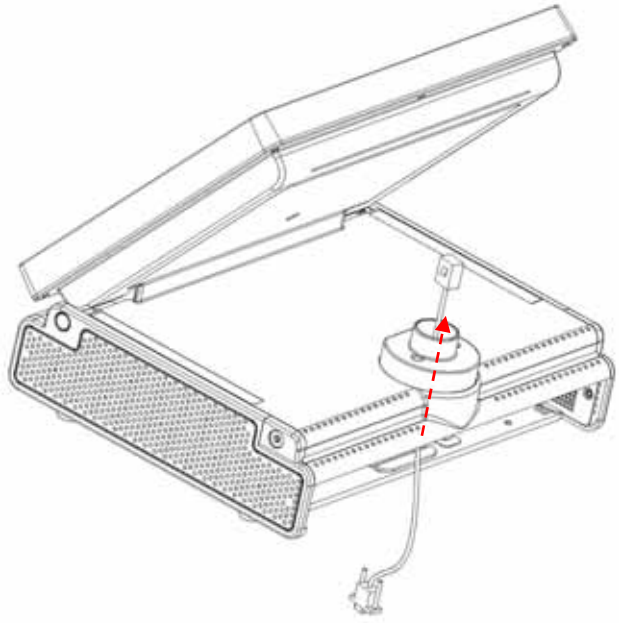
Installing a VFD

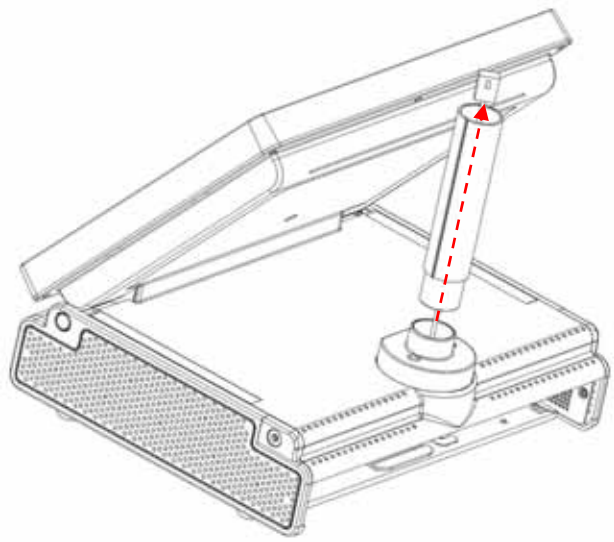
Note: Before installing a VFD, please make sure the jumper is set correctly on the main board (Please refer to 2.2a COM power selection). The supply voltage for the customer display should be set to +12V.

1. Turn off the system power.
2. Remove the rear plate (A). Tear off the seal on the hole and then use two screws to secure the VFD Holder to the base.

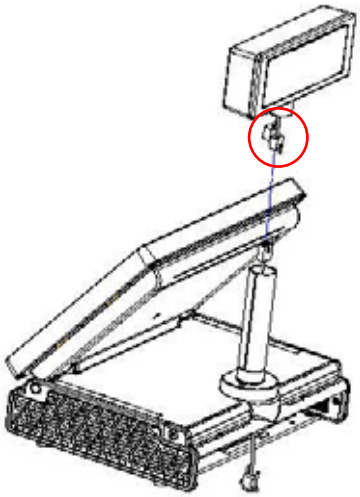


3. Trace the COM cable through the VFD holder. If you are using poles, please also trace the COM cable through the pole.

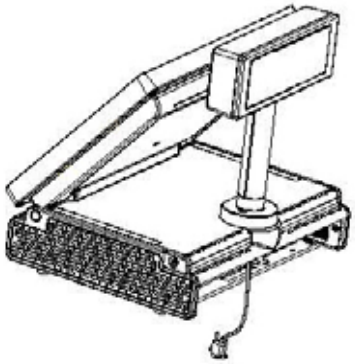




4. On VFD monitor, there are two cables. Please use the longer one to connect with the COM cable.



5. Position the VFD display into the holder.
6. Connect the VFD COM cable to the COM port.



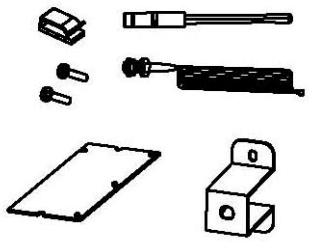
7. Turn on VFD power switch, and then turn on system power.

2.2f WiFi Installation……

An optional WiFi can be installed on the right side of GT-150 Terminal.

Package Content

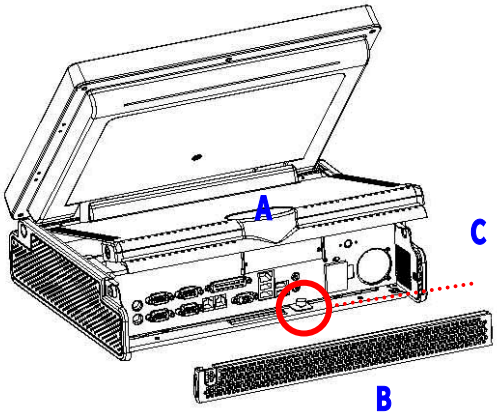
- A Mini-PCI card
- A detachable antenna
- An Antenna line
- An U-shape base
- A cable clip
- Screw x 2



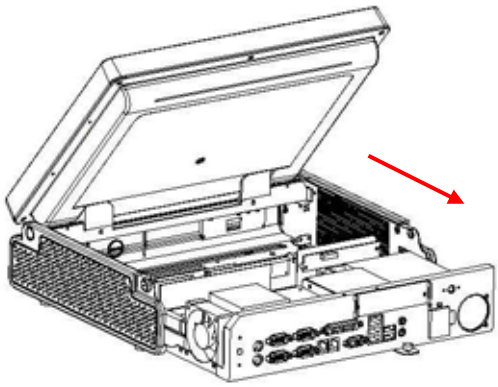
Installing WiFi

1. Turn off the system power.
2. Loosen the two screws on both sides as the picture shown below.

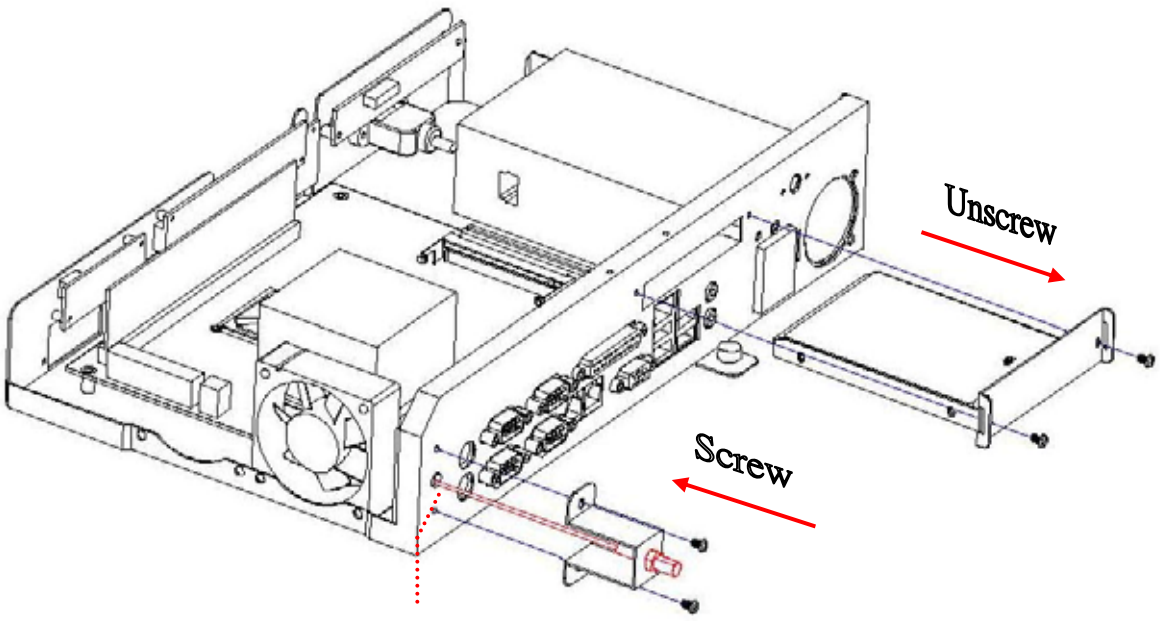
3. Slide out the rear plate (A) and take off the back plate (B). Loosen the screw (C) and slide the unit outwards to reach the main board.



Loosen this screw!

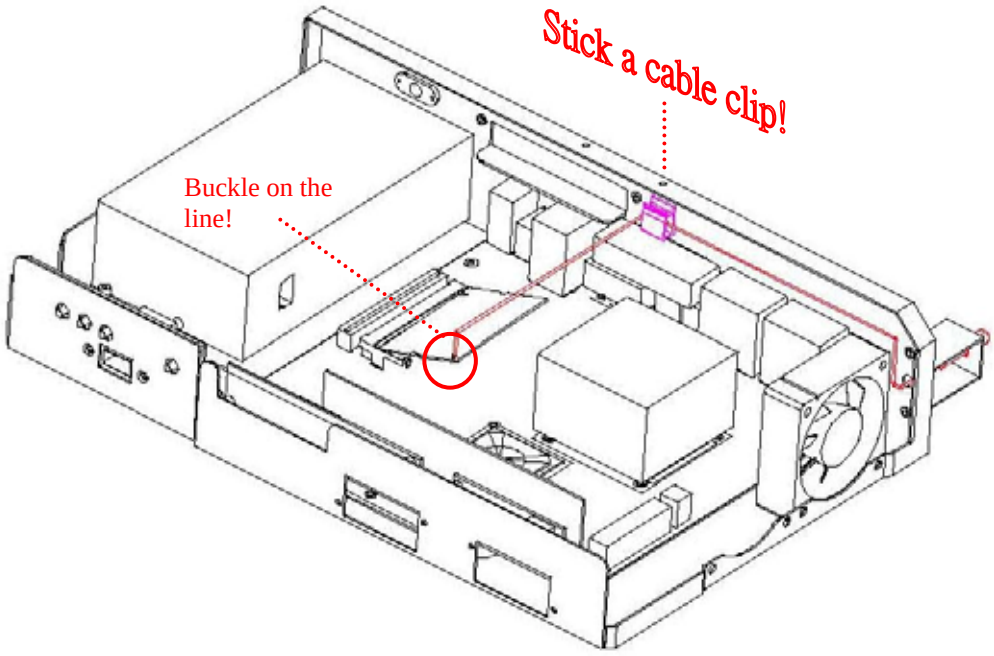


4. Unscrew HD and remove the HD cable. Screw the U-shape base to the unit, and then penetrate the antenna inside.

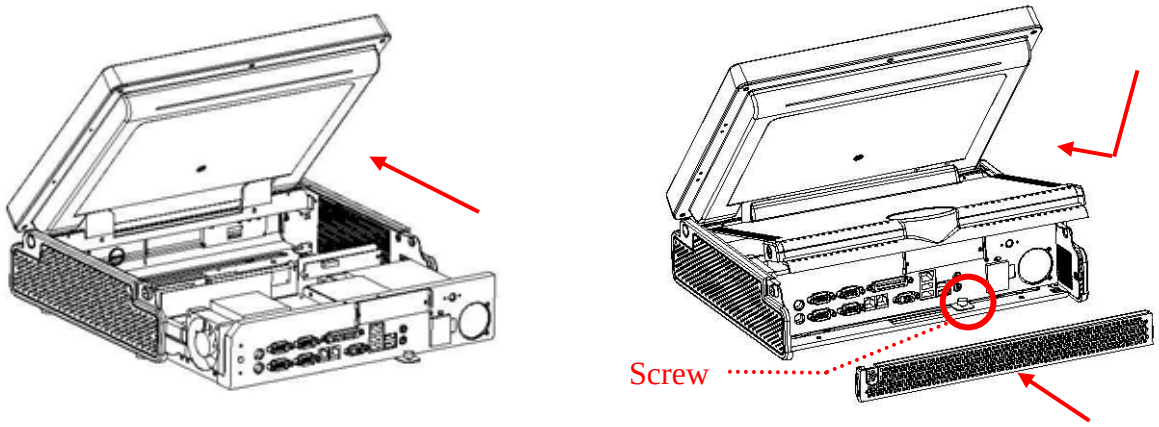


Penetrate the Antenna line
into this hole!!

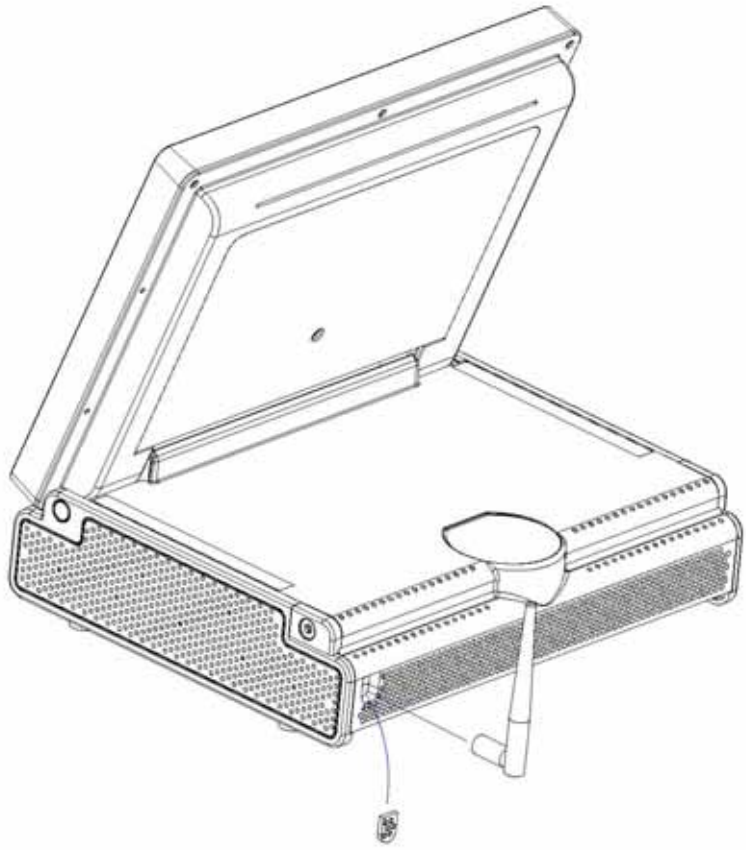
5. Trace the Antenna line into the unit using the cable clip on top of the LPT port to secure the cable. Insert the WiFi card into the slot.



6. Replace the case, back and rear plate.



7. Broken the hole on the back panel and attach the antenna on.



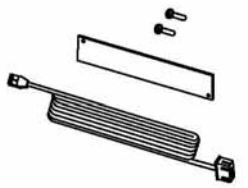
8. You may turn the system back on once the WiFi is completely installed.

2.2g RFID Installation……

An optional RFID Card can be installed on the GT-150 Terminal.

Package Content

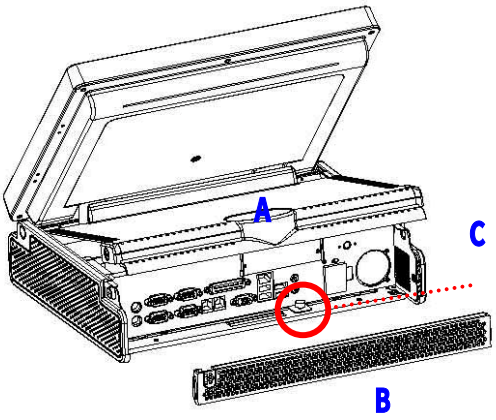
- A RFID card
- A RFID cable
- Screw x 2



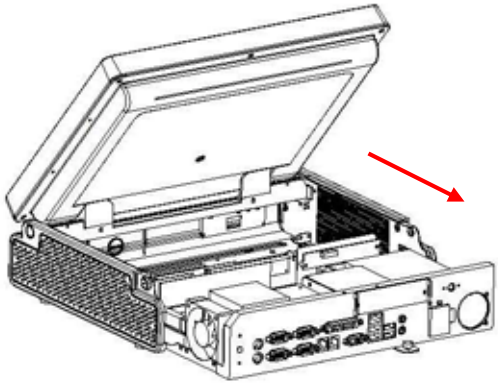
Installing RFID

1. Turn off the system power.
2. Loosen the two screws on both sides as the picture shown below.

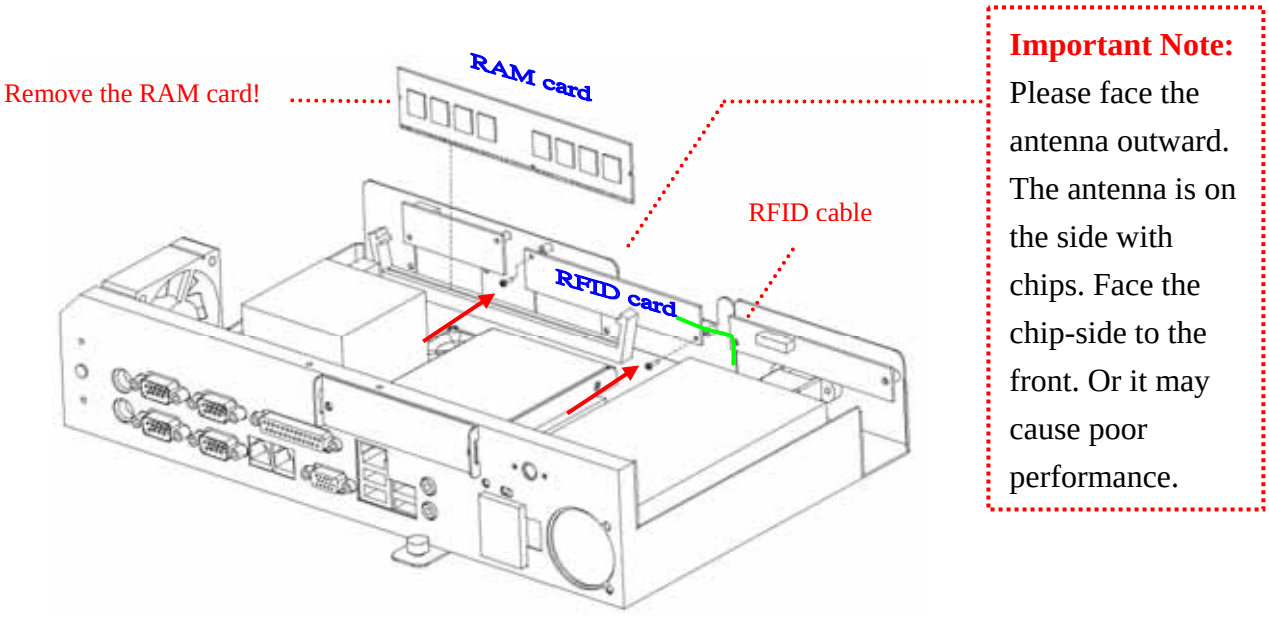
3. Slide out the rear plate (A) and take off the back plate (B). Loosen the screw (C) and slide the unit outwards to reach the main board.



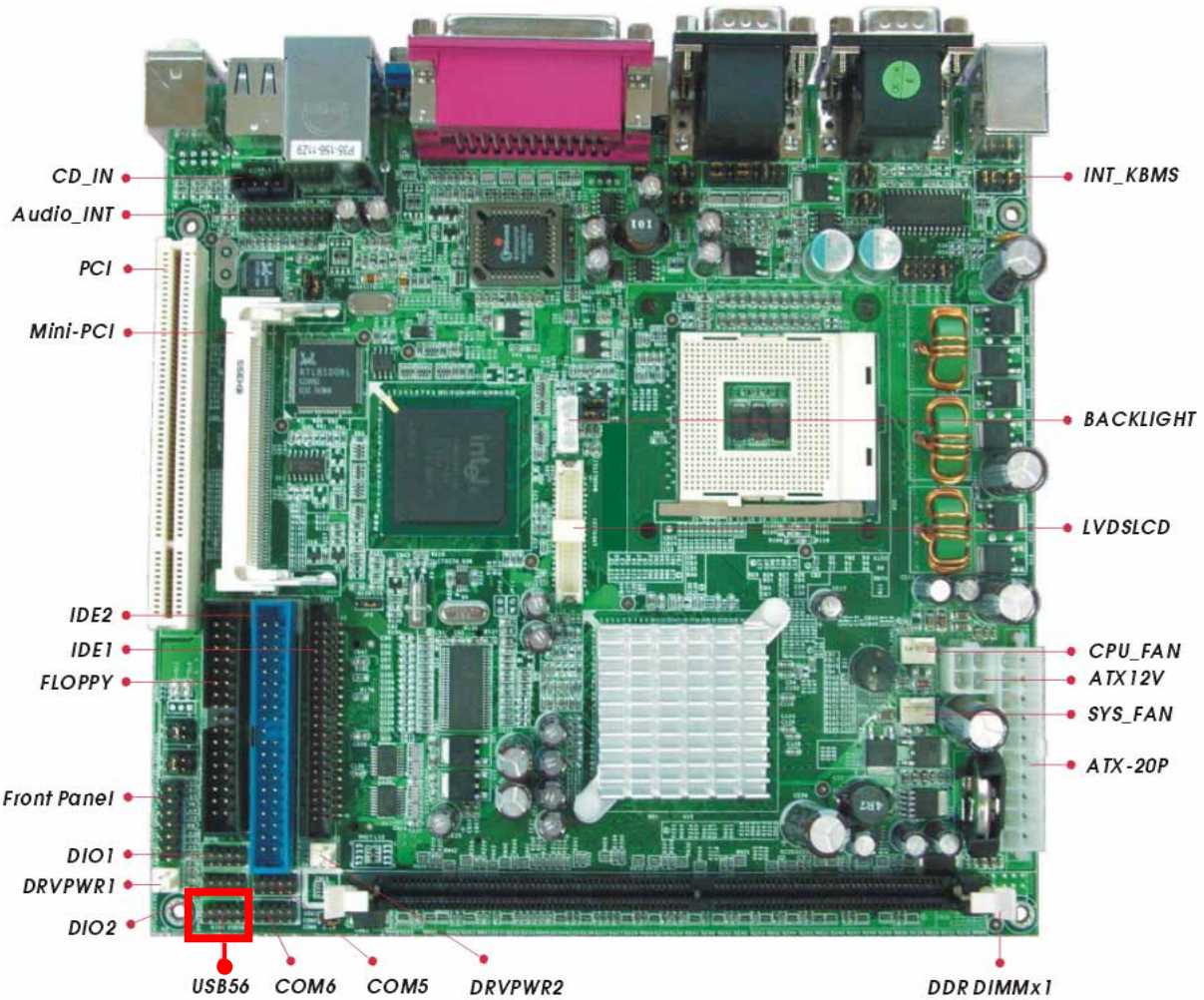
Loosen this screw!



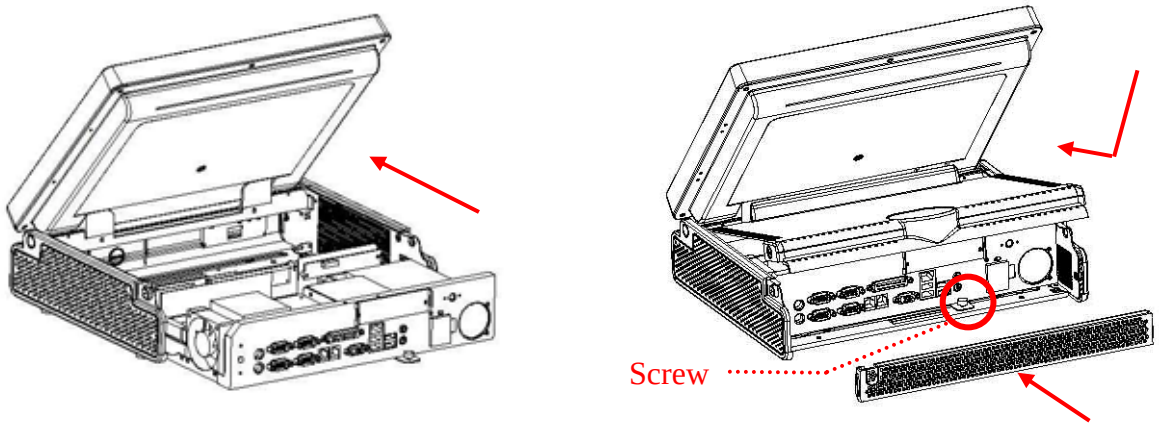
4. Remove the RAM card. Screw the RFID card to the system. After RFID card installation, replace the RAM card.
5. On the main board, trace and connect the RFID cable to USB56 port.



Important Note:
Please face the antenna outward. The antenna is on the side with chips. Face the chip-side to the front. Or it may cause poor performance.



6. Replace the case, back and rear plate.



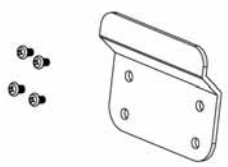
7. You may turn the system back on once the RFID card is completely installed.

2.2h Wall Mount Installation…

GT-150 Terminal can be wall-mounted on a flat surface.

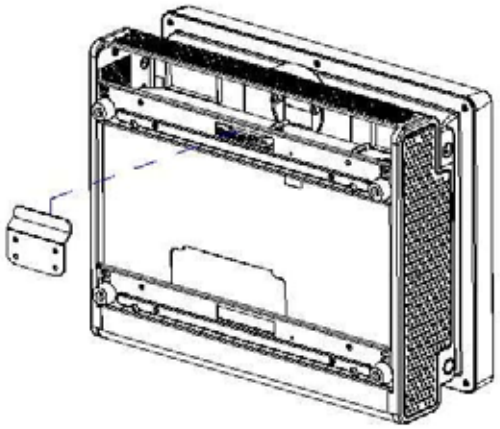
Package Content

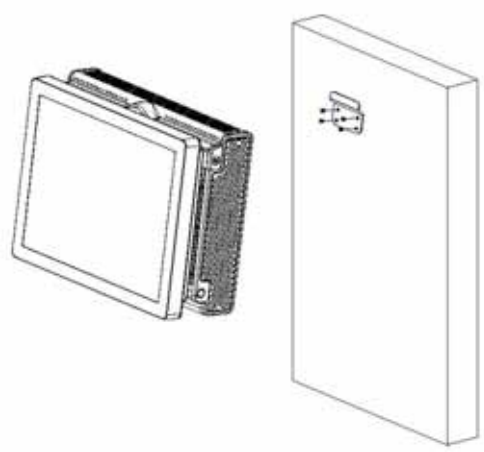
- A mounting plate
- Screw x 4



Wall mount Installation

1. Turn off the system power.
2. Select a location with access for cables and a power outlet.
3. Unplug the unit. Place it upside down on a flat surface and mark the four holes for anchors.
4. Installing the wall mount anchor into the wall with tools such as drill or hammer.
5. Insert the screws in each hole of the stand parts.
6. Attaches the unit to the anchors on the wall.





7. You may turn the system back on after installation.

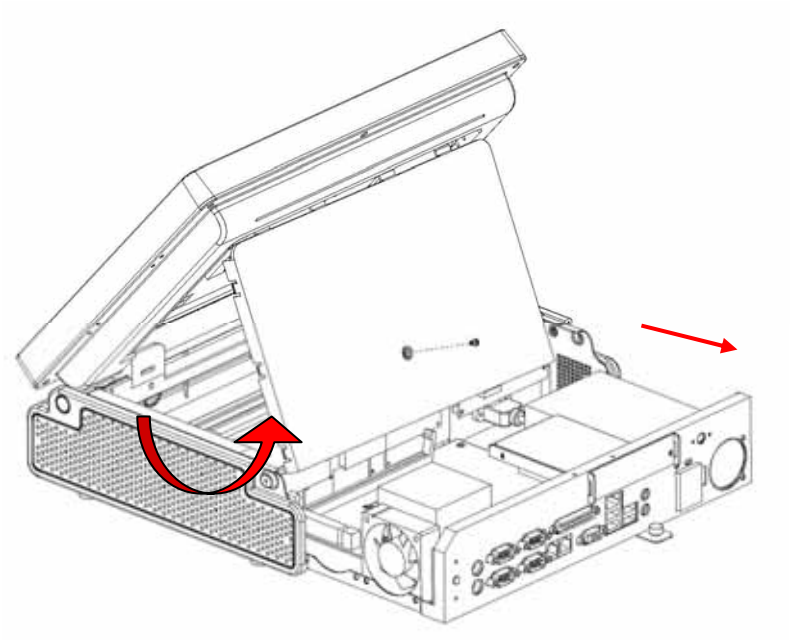
CMOS Setup

POS GT-series systems have adopted the motherboard M3 that uses AMI BIOS.

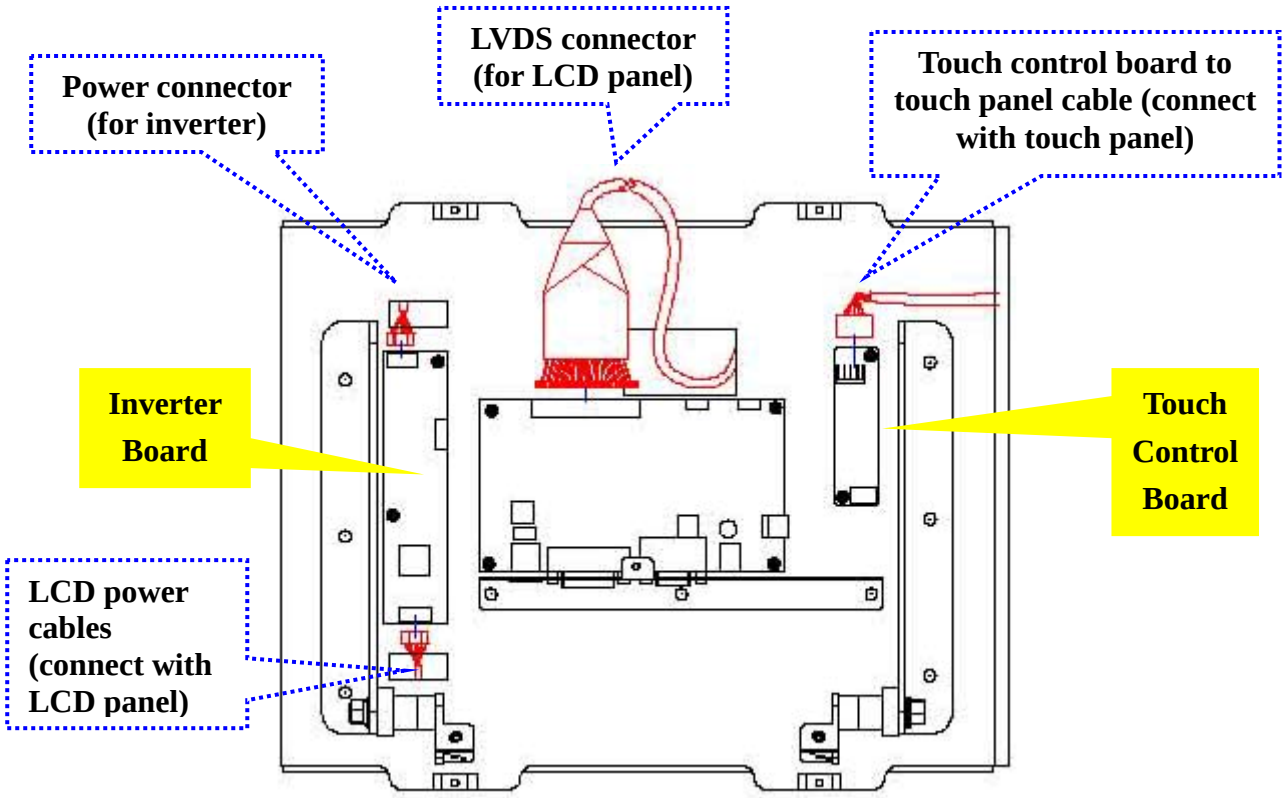
Please refer to the M3 M/B User's Manual chapter 3 for a detailed description of the BIOS CMOS setup.

2.3 LCD and Touch Panel Replacement

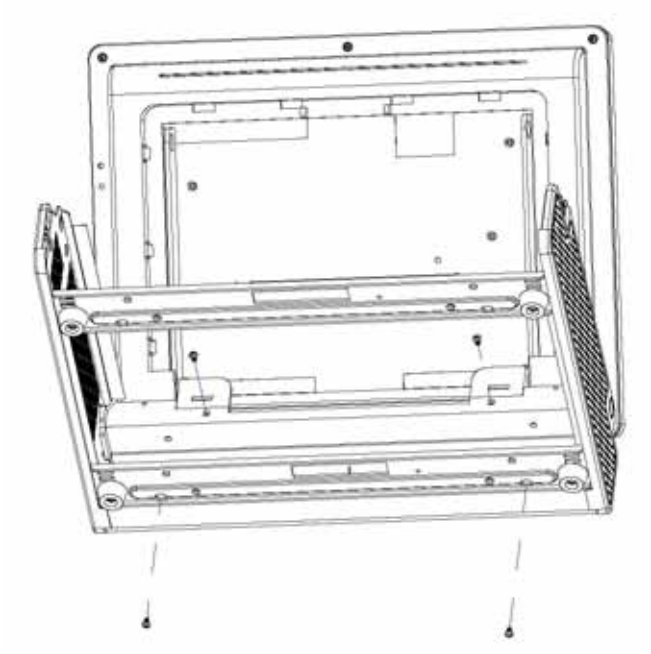
1. Loosen the screw on the back of the monitor and open the cover.
2. Slide the unit outwards.



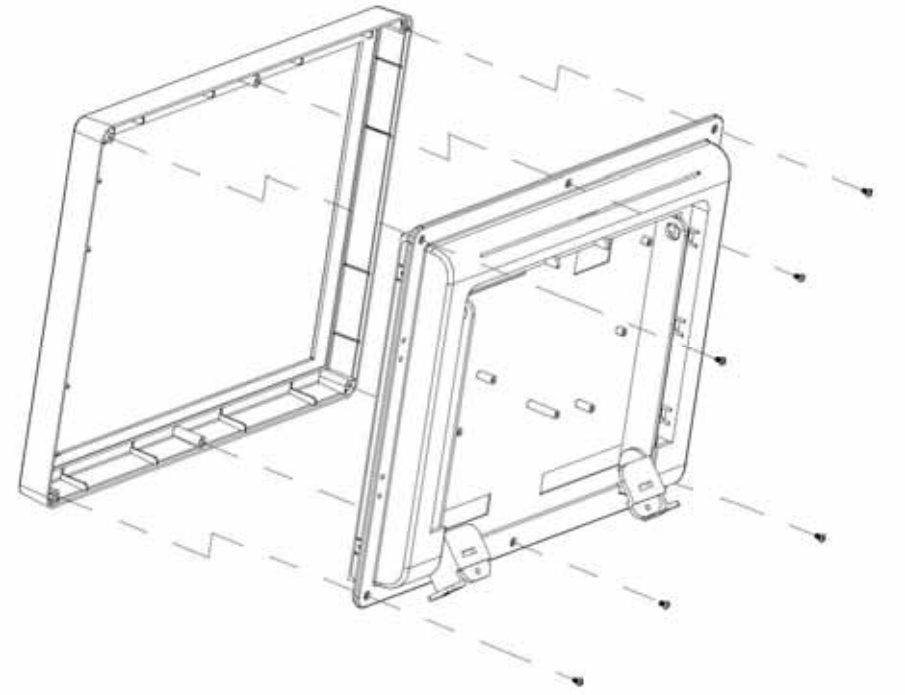
3. Unplug all the cables on the rear of the monitor.


Power connector (for inverter)
LVDS connector (for LCD panel)
Touch control board to touch panel cable (connect with touch panel)
Inverter Board
Touch Control Board
LCD power cables (connect with LCD panel)

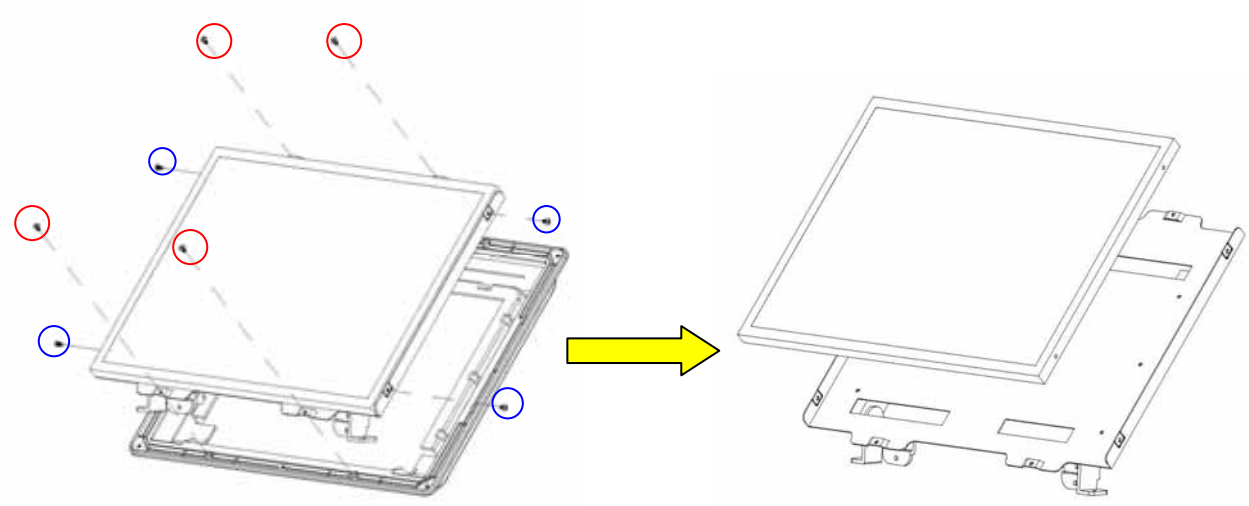
4. Loosen the two screws from the bracket and the other two screws on the bottom of the device.



5. Loosen the six screws to depart the front cover from the monitor.



6. Loosen the four screws (marked in red) to depart the back cover from the monitor. Then, loosen the other four screws (marked in blue) to depart the touch panel from the bracket.



Note: Please reverse the steps from step 6 to step 1 to replace the LCD and touch panel. Pay attention to the position of each cable during re-plug (step 3). The wrong cable connection may cause the device malfunction. Be careful!!

3. Specification

Technical Information

System

Model Name	GT-150

Motherboard

CPU	Intel Celeron M 1.2 GHz (Socket 478)
System Frequency	400 MHz
Chipset	Intel 852GM + ICH4
Memory	One 184PIN DDR DIMM socket up to 1GB (Support DDR 200/266 unregistered non-ECC)
Ethernet	10/100Mbps Ethernet
Graphic	AGP 8X hardware 2D/3D Video Graphic Accelerators Onboard (Support 2nd VGA Output)

Display

LCD Size	15" XGA TFT LCD
Brightness	250 - 350 cd /㎡
Dimension (mm)	351(W) x 288(D) x 329(H)
Resolution	1024 x 768
Touch Screen Type	TW 5-wire or ELO Resistive (RS-232 or USB Interface)
Tilt Angle	0 - 70 degree

Storage Device

HDD	1 x 2.5" IDE/SATA HDD (Support Ultra DMA 100)
Flash Memory	1 x Compact Flash II Socket

I/O Ports

Serial Port	Total 6 COM port on board 2 x Internal 4 x External
Parallel	1 x Parallel port
USB	Total 6 USB port (USB 2.0) support. 5 External - located 1 on the front and 4 on the rear panel 1 Internal
PS/2 Keyboard	1 x Mini-Din Keyboard port 1 x Mouse port
VGA Port	1 x VGA port (for second screen)
Ethernet Port	1 x RJ-45
Cash Drawer	2 x RJ-12
Audio	1 x Audio Line-out port 1 x Mic-in port
Expansion Slot	1 x Mini PCI Slot

Power Supply

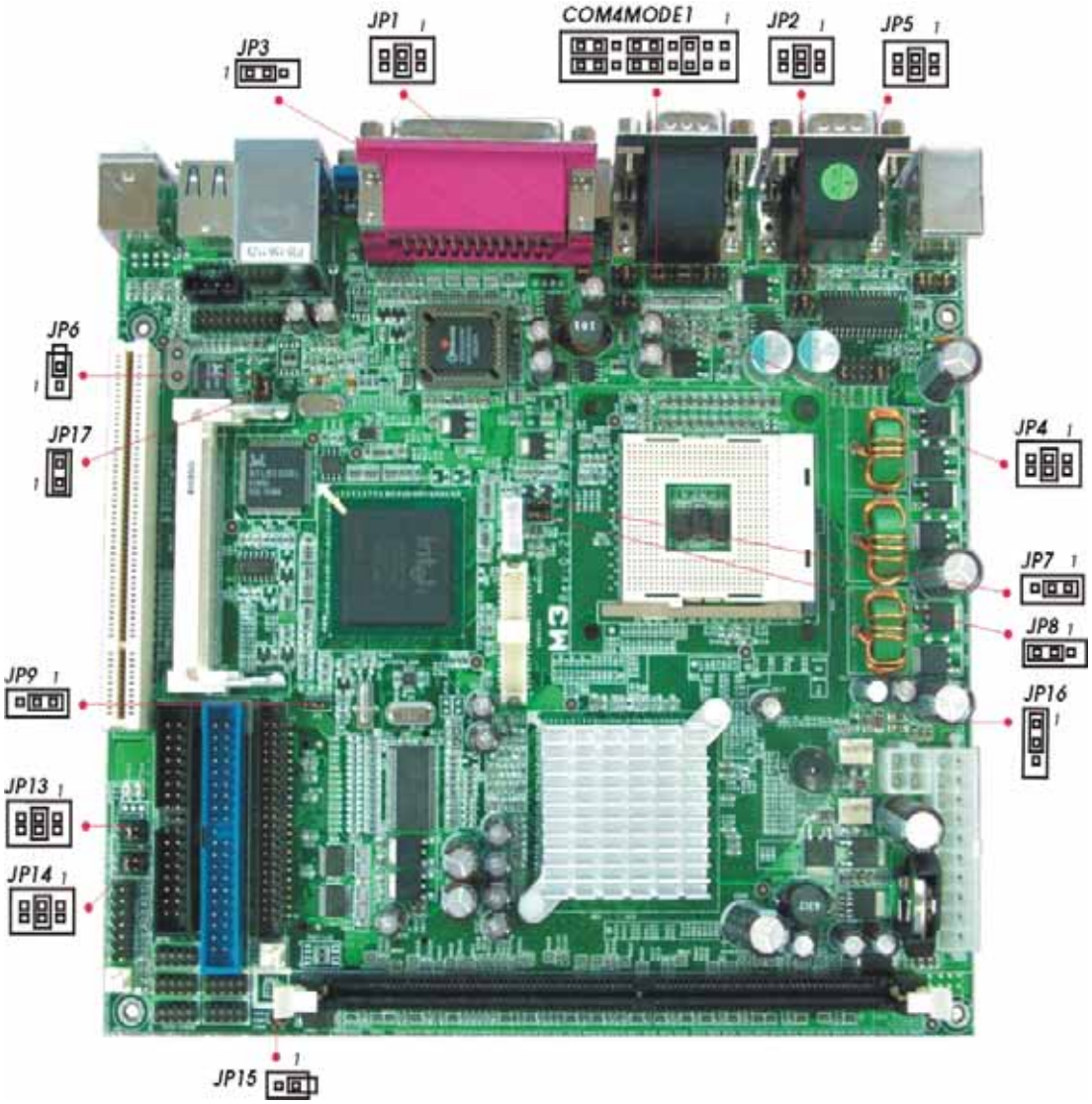
Power Supply	ATX 200W power supply

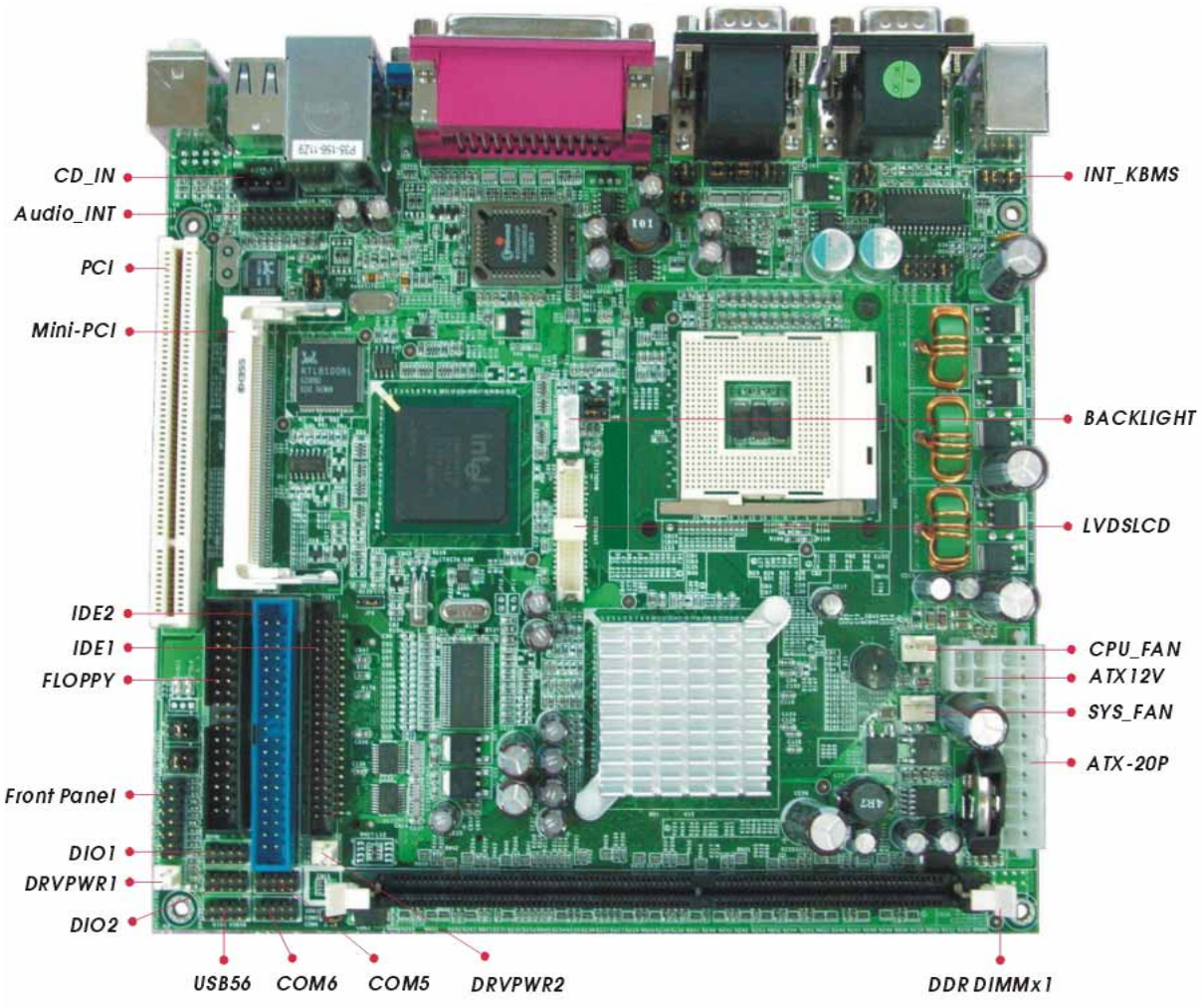
Others

Optional Integrated Device	Second 8"/10" LCD Screen without Touch Monitor VFD Customer Display MSR Card Reader 3 in 1 (MSR + Smart Card + iButton Reader) WiFi RFID Sound Speaker

∗There is LVDS chip onboard M3 M/B which is responsible for connecting the primary LCD display. However the motherboard it self has one VGA port which then can be responsible for connecting the second LCD display.

Motherboard Configuration




CD_IN
Audio_INT
PCI
Mini-PCI
IDE2
IDE1
FLOPPY
Front Panel
DIO1
DRVPWR1
DIO2
USB56
COM6
COM5
DRVPWR2
INT_KBMS
BACKLIGHT
LVDSLCD
CPU_FAN
ATX12V
SYS_FAN
ATX-20P
DDR DIMMx1